THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1379 DECEMBER 12, 1914. VOL. XXVII.

THE HORSE SUPPLY.

The war has evoked some discussion of this subject in the public press. It is a many-sided question; and it should always be remembered that the supply of horses for ordinary peace purposes is as important as army requirements at any time—and more important under normal conditions. Any discussion at the present moment seems rather premature. Our most pressing need just now is for adult horses for war purposes, not foals; and the problem of horse shortage can only be permanently met by attention to horse breeding. While the war lasts, and we are using up our own horses and those we buy from abroad, all we can do for the future is to try, as far as possible, to preserve the mares. When peace is concluded, it will be time to decide what steps the State should take to support horse-breeding. For one thing is quite certain—that we shall never have an adequate horse supply again, unless the State does support horse-breeding.

Few men, outside those directly concerned with horse-flesh, realise the effect that motor traction has had upon the horse supply. A man breeds horses in the hope, not of an immediate profit, but of a future one, several years after his initial outlay; and, for many years past, the existence and progress of motor traction has rendered that hope more or less uncertain.

The motor has displaced the horse to a great extent, and is continuing to do so; but no one can yet say where the process will stop, or how soon it may become accelerated. This has been the position for many years past now; and naturally men have hesitated to breed horses for a decreasing market. Here we have an explanation of the fact that, as the motor has gained ground, the supply of horses has never exceeded the demand. And, until the relative positions of horse and motor are finally settled, we may safely say that the number of men who breed light horses, at any rate, for profit will continue to decline. Breeding is becoming too risky a venture for private enterprise; the Government must step in and either make it a safe one, or else take the task on its own shoulders,

The State has shown an increasing tendency to encourage horse-breeding of late years—it has not yet done very much, still it has made a start. After the war, it must do much more; and we do not think that this or any other Cabinet will fail to recognise the necessity. In the meantime, it would be well for those interested in the subject to think out suggestions for action; but this is scarcely the moment to advance them.

NOTE ON THE OCCURRENCE OF DEMODEX IN IMPORTED PORK.

Infection of the pig with parasites of the family Demodicidæ seems to be of sufficiently rare occurrence, or to be seldom enough noted, to warrant the placing of this instance on record.

At the beginning of this month several pieces of skin from the face of a pig's carcase, imported into this country from the Argentine, were submitted to me with a request that I should examine same and report upon the peculiar condition seen in the skin.

On examination of the skin it was seen to be studded with numerous whitish nodules varying in size from that of a mustard seed to that of a small pea and closely resembling acne pustules. In some portions of the skin, especially that taken from just below the eye, these nodules were very thickly set indeed (*vide* photo). The individual nodules were in some cases umbilicated.

These nodules were to be seen in the skin of the face chiefly. Only a very few scattered nodules were found on the rest of the carcase and these occurred on the shoulders and inner side of hind legs.

On opening the nodules they were seen to contain a thick sebaceous material. Some of this was transferred to a slide and teased up with a little saline. On examining this with a microscope there were seen very numerous parasites of the family Demodicidæ mixed with a certain amount of sebaceous material.

By suitable treatment it was found possible to abstract the sebaceous material and so get the Demodicidæ free. It was then seen that the parasites were of three kinds:—Males: Females: Larvæ: all of which were found lying together in and the same nodule.

The males (*vide* photo) are provided with eight short legs, a mouth apparatus, and an annulated tapering abdomen, and measure some 205*u* in length and 60*u* in breadth.

The females are somewhat larger, measuring some 230*u* in length by 60*u* in breadth. They also are possessed of eight legs, mouth apparatus, and annulated tapering abdomen, but are distinguished by the possession of an egg sac situated in the anterior portion of the abdomen.

The larvæ differ from the adults mainly in only possessing six legs, in possessing no developed sexual apparatus, and in their smaller size. Their measurements are 160*u* long and 45*u* broad.

Sections of the skin showed that these nodules appeared to arise in the sebaceous glands, convert-

ing same into little cysts lined by fairly dense fibrous material, and containing sebaceous material and crowds of parasites.

Parasites of the genus demodex have been described in various animals including man, dog, cat, pig, ox, hare, horse, sheep, fox, deer, bat, rat, and field mouse.

The species occurring in the pig is known as *Demodex folliculorium var. suis*, or *Demodex phylloides*.

It does not appear to be of common occurrence in the pig. It was first described in that animal by Csokor in 1878. Since then it has been noted by Neumann, Wright and Lindquist.

These observers state that the favourite site for the activities of this parasite is the skin of the groin. It is also found on the neck, the brisket, and flanks, and the internal aspect of the legs, but they do not mention the skin of the face as a part affected by the ravages of the pest.

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TUBERCULOSIS IN THE LIVER AND SPLEEN OF A LEMUR.

By Satyendra Nath Mitter, G.B.V.C., Senior Lecturer Bengal Veterinary College, Calcutta.

Since I published my note on a case of generalized Tuberculosis in a Macacus in the *Journal of Tropical Veterinary Science*, another one affecting the liver and spleen has recently been observed in a ruffed lemur (Lemur Varius) received for post-mortem examination from Calcutta Zoological Garden. Besides the lesions of acute gastritis to which the animal succumbed, a number of calcified nodules were found in the liver and spleen. The smears taken from the foci and stained with Zeihl Neelson's, showed a large number of B. Tuberculosis. The other organs appeared to be free from tubercular lesions. It is highly probable that the animal was infected through the alimentary tract.—(From the Raymond Research Laboratory).

A TUMOUR AT THE BASE OF AN ANTLER OF AN INDIAN SPOTTED DEER.

By S. N. Mitter, G.B.V.C.

Through the kindness of Mr. D. Dey, G.B.V.C., Offg. Asst. Principal of this College, I was able to examine a tumour removed from the horn of an Indian spotted deer (Cervus Axis).

The animal was admitted with a growth at the base of the velvety knob representing the newly growing antler on the left side of the head, The tumour extended across the forehead as far as the right antler, and from the pressure on that side produced extensive œdema around the right eye-ball. The clinical history of the case was vague and rather disappointing.

Macroscopically the tumour was soft, lobulated, and covered with a fibrous membrane. Connected with the substance of the tissue were found several minute sinuses discharging yellowish fœtid material. On section it was found to be composed of a soft matrix in which were distributed several foci containing fœtid yellowish and granular, semi-liquid elements.

Remarks:—Under a microscope, the growth had the appearance of myxomatous tissue interposed with cartilagenous structure. Therefore the tumour might be classed as a myxochondroma, with mucoid degeneration of the matrix. It is highly probable that the tumour originated from a contaminated wound at the vascular knob of the new antler at the time of shedding.

The microphotograph shows the historical structure of the neoplasm.—From the Raymond Research Laboratory.

ABSTRACTS FROM FOREIGN JOURNALS

A Case of Malignant Lymphomatosis in a Horse.

E. Gräub, veterinary surgeon at the remount depot at Bern, reports (*Tierarztliches Zentralblatt*) the following case. In different portions of a horse's body, hard button-like insensitive tumours ranging from the size of a nut to that of an egg appeared under the skin.

The submaxilliary lymphatic glands were hard, but moveable. There were no lesions of the visible nasal mucous membrane. The mallein test (both subcutaneously and ophthalmically applied) gave negative results.

After about seven weeks, fever and nasal discharge appeared. The posterior portion of the nasal mucous membrane was swollen; and œdema appeared under the thorax and on the prepuce.

The number of tumours became greatly augmented. Ulcers of irregular form now appeared upon the nasal mucous membrane; and, after they had healed, slightly thickened but not radiate cicatrices remained. The fever subsided to the normal; but it was found necessary to slaughter the horse on account of roaring.

Post-mortem, the thoracic and abdominal viscera were found to be normal, except that the spleen was smaller than usual. The tumours, upon section, had a marrowy, grey-white aspect. Very large tumours were found on the nasal mucous membrane and in the pharynx, thus explaining the roaring.

Histological investigation showed the case to be one of malignant lymphomatosis.—(*Münch. Tier. Woch.*)

Poisoning in Cows from eating Wild Poppies.

Solleder, a district veterinary surgeon of Lauingen, records the following observation. Four cows, after being fed in the evening, showed symptoms resembling frenzy. They gnashed their teeth, sprang upwards into the manger, sweated violently, and then one by one fell, only to rise again staggering, and begin the round afresh. Finally they became quiet, and seemed to fall asleep.

Solleder found them lying half-asleep, with their necks bent sideways. Three of them scarcely reacted to a pin-prick. The fourth, immediately after being pricked, sprang up and became very violent again, and then, falling over the manger, became somnolent and lay as if paralysed. As the pulse was good, this animal was merely treated by applying cold water upon the head and a spirituous embrocation over the loins. The other three cows slept on quietly.

After three hours had elapsed and an atropine injection had been given, the somnolence gradually abated and all four cows slowly recovered. The first three cows stood up and could stand, although uncertainly. The fourth cow did not rise that day, nor yet the next morning, when all four cows were eating well. This fourth cow was then found to have fractured a limb in falling over the manger, and was slaughtered.

The diagnosis of poisoning with poppies was easily made. Some fallow land bearing poppies and cornflower had been mown; and the mowing, mixed with very fine chop, had been given to the cows.—(*Münch. Tier. Woch.*)

The Prevention of Iodism and Bromism by the Administration of Calcium.

Prof. Ernst Frey points out (*Therapeutische Monatsberichte*) that, during the administration of salts of bromine and iodine, undesirable effects can be caused by the irritant action of these salts upon the muscles.

Experiments upon animals have shown that lime hinders this irritant effect; and it is therefore indicated that, in the place of bromide or iodide of potassium, bromide or iodide of calcium should be prescribed. On account of the deliquescence of these salts, they should be prescribed in solution.—(*Münch. Tier. Woch.*)

W. R. C.

RESPIRATORY ANÆSTHESIA OF ANIMALS.*

Report by Dr. L. A. Merillat, Professor of Surgery in McKillip Veterinary College, Chicago. [Abstract.]

I have decided to limit my remarks to the above title because the distinguished reporters, Prof. Hendricks, Prof. Vennerholm, and Prof. G. H. Wooldridge will undoubtedly present the complete formal discourse on the general subject, and, besides, my experiences with intravenous, hypodermic, intraperitoneal, and rectal anæsthesia has been so disappointing from every standpoint that I lack the inspiration to write about them. On the other hand, my experience in anæsthetizing about ten thousand horses and many small animals by inhalations inspires me to report the confidence that can be placed in the old, standard, conventional method.

Naturally we Americans are proud of our achievements in this connection. We seldom fail to point with pride to that historical event in the Massachusetts General Hospital in November, 1846, where the first major operation under inhalation anæsthesia was performed. Dr. W. T. G. Morton, under whose supervision the anæsthesia was administered for this eventful operation, is a much revered man with us, and while we are not unmindful of what followed in Europe to bring his discovery into greater prominence than was possible in America at that time, we are more and more inclined, as surgery progresses, to claim for Morton a place among the great benefactors of the human race and of the animal kingdom. At least, an American speaking abroad would be accused of a sin of omission if he failed to pay tribute to Morton's memory while dealing with the subject of respiratory anæsthesia.

Veterinarians in America—and, I believe, the world over—have been very slow to avail themselves of this most effectual and most certain method of controlling surgical pain. Substitutes for this complete general anæsthesia, which only stupify surgical patients, and local anæsthetics have always attracted more attention in the veterinary profession. Our current literature is often full of new methods of anæsthesia, but it is signally lacking in instructions on the administration and proper management of inhaled anæsthetics. We seem to be acting toward respiratory anæsthesia as if it were an exact science of which everyone is master; as if we had exhausted all of its possibilities, and, finding it faulty, we must now seek for other methods; and as if it were attended with obstacles or dangers which make it inapplicable to our work. In short, respiratory anæsthesia is still little used, and is still too little understood in the veterinary profession. It has never been extensively practised.

Anæsthesia extending to the point of complete relaxation of the musculature, in the hands of the untrained, is an exceedingly hazardous state. If prolonged for an hour or two the hazard increases. On this account a veterinarian about to perform an operation of some duration, the technique of which will require his full attention, is always inclined to avoid this method of controlling pain. In fact, it does offer disadvantages he cannot easily overcome. Trained anæsthetists are not numerous, certainly not within the reach of all veterinarians, and where one can be procured, the added cost to the already ill-paid surgeon prevents his employment. When the anæsthesia is entrusted to untrained hands, the mental strain of dividing the attention between the safety of the unconscious patient and the operation itself invites disaster from both sources.

But in spite of this dark side of the question there is such a bright side that it seems a pity we practise it so seldom. Safe respiratory anæsthesia depends solely upon keeping well under the lethal dose for a given patient. That is, *we must not poison our patients.* To produce maximum anæsthesia with a minimum of drug is the desideratum, and it is only by accurate dosage in its utmost possible refinement that this can be accomplished. In this we are confronted with the task of delivering an elusive vapour to our patients in a given quantity. That this is a problem difficult of solution I admit, but being an exceedingly important matter as well as the real solution of safe anæsthesia, it behoves us to work to this end as the expert anæthetists of human beings are doing. Automatic mechanical measurement of vapourized chloroform or ether and the effectual delivery of a given amount to a patient will make anæsthesia an exact science. Anæsthetists of humans have the matter well in hand by utilizing complicated apparatuses adaptable for their use. Similar apparatuses applicable to animals are needed to bring our respiratory anæthesia nearer to perfection.

When an operation is short and the patient vigorous the limit of safety need never be approached, but when the operation is a long-drawn-out affair and the patient sick and weak, the limit of safety is easily exceeded. From the beginning it has been the custom of anæsthetists to gauge the dosage by the reaction of the patient. Little attention was paid to the amount consumed. To-day the amount consumed is being

*Presented at the Tenth International Veterinary Congress, London, 1914.

pre-eminently considered, and splendid methods of regulating this amount are being worked out. The uncertainty of depending entirely upon the reaction of the patient needs no comment. Such observations are sometimes misleading. They permit of no fine explanations for the instruction of others, and thus prevent the standardization of methods through which uniform results can be achieved.

That respiratory anæsthesia may be safely entrusted to the student, the inexperienced assistant, or fellow-practioner is wrong. The successful administration of an inhaled anæsthetic requires a wealth of experience. Of this I am convinced. Respiratory anæsthesia is safe enough when neither profound nor prolonged, and especially when administered to a sound, vigorous subject properly prepared for the ordeal. It is particularly safe when the operation is of such a character as to wield but little influence on the course of the anæsthesia. On the other hand, patients sick with disease of an enfeebling character, requiring an exhausting operation of long duration (one hour or more) very readily fall victims to badly administered anæsthetics. It is in these cases that the skill of and experienced anæsthetist is needed to carry the patient safely through the operation and to prevent post-anæsthesia complications. Exceptionally sanguinary operations are also dangerous when the anæthetic is badly administered. When the blood loss reaches the danger point prolonged and profound anæsthesia is exceedingly dangerous. A surgical patient weak from blood loss and saturated with chloroform or ether is always a real hazard.

I therefore divide all patients requiring general anæsthesia into three groups as follows :—

First Group.—In this group I include all patients which can be safely anæsthetized without any especial skill on the part of the anæsthetist. The operations are of short duration, and the patients are vigorous. Their afflictions have not affected the general health to any appreciable extent, and the operation will not exert much influence upon the anæsthesia. I refer here to neurotomy, tendonotomy, ablation of small growths, castrations, hoof operations, and other minor operations too numerous to mention. For such operations respiration anæsthesia is always better than local or regional, and sometimes it is absolutely necessary to obtain the best results. Accurate work is often impossible under local anæsthesia, because these do not control the struggles against restraint. Intractable horses, vicious horses, and nervous dogs are never well controlled with local anæsthesia, and so often local anæsthesia is not complete. For example, in the operation of dividing the tendon in volar flexion the slightest jerk of the leg at a crucial part of the work prevents accuracy, and such disturbing movements are never effectually controlled by any form of anæsthesia except that produced by inhalations of chloroform or ether.

All the operations of this group are of relatively short duration, complete or prolonged relaxation of the musculature is not essential, and the patients are in good health and well prepared. The danger is therefore negligible even when the administration is left to more or less inexperienced hands. The state of unconsciousness required for these operations is but a transient hypnosis —an anæsthetic veneer—that is seldom dangerous. The painless steps of the operation, such as washing the field, shaving, paring of hoof, &c., are all done before the anæsthetic is administered ; then, as soon as the painful part is completed, the patient may already be reviving while the bandages are being applied. In this manner the time of total unconsciousness is very short.

In this group of patients I bring about a state of surgical anæsthesia in a few minutes by forcing the delivery. Sixty to ninety cubic centimetres of chloroform (for horses) is placed in the sponge, which is large enough to hold it all without dripping, the muzzle is anointed with vaseline, and the sponge is held to the nostrils in an air-tight sheet of oilcloth large enough to fold over the head when gathered up. The anæsthetist bears upon the poll, and holds the sheet in place by encircling the arms around the nose. By thus holding the nose from the floor or table the head can be well controlled against the struggles which ensue as the administration begins. In from *one to two minutes*, when the struggling ceases and the respirations become soft and more shallow, the sheet is spread out and the administration continued by dropping the chloroform through a towel stretched over the uppermost nostril. The undermost nostril is free from obstruction. In the short minor operations no especial attempt need be made to bring about a very profound state of anæsthesia, as the work is often done before all the reflexes have been banished. When, however, the operation is of longer duration or a relaxation of the musculature is desired, it is safe enough to force the administration to a successful issue by closing the undermost nostril as the chloroform is dropped into the towel on the uppermost one. This is continued until the *corneal reflexes* wane or disappear. It is not safe for the novice to push matters too far at this point. It is better for the inexperienced to err in the direction of too little anæsthesia than to venture too near the danger point. Almost all the operations of this group can be effectually completed without entirely dispatching the corneal reflexes. The state of the *respirations* must then be kept under strict surveillance. If regular everything is well, but when a pumping or jerky state develops, the free admission of air without any chloroform must be insisted upon until the unnatural breathing corrects itself. The shallow inspiration that ends in a sudden collapse of the abdomen is a bad sign, and even the deep inspiration that ends thus must be regarded with a suspicion that the danger-point is being approached. I always hesitate to say too much about the corneal reflexes as safeguards against danger because too much dependence may be placed upon them. Better to note carefully the story being told by the respirations, and by the pulse, than to depend so much upon the cornea. The cornea gives a fair idea of the state of anæsthesia, but it is never a safeguard against asphyxia or syncope. *Guttural sound* is a cue for the anæsthetist to draw the tongue forward to prevent it from crowding the pharynx. The pulse in this transient and incomplete anæsthesia may be very slow and soft without presaging danger, and when the artery becomes empty and the pulse waves become distinctly separated one from another, the danger point from embarrassment of the heart is near.

To keep within the bounds of safety, the anæsthetist who is inexperienced must be instructed to withhold the anæsthetic, extend the head, draw the tongue forward and leave the nostrils free from obstruction on the very first appearance of any unnatural behaviour of the respirations or pulse, even at the risk of annoying the operator ; and should the respirations cease entirely, artificial respiration must be induced instantly. No time must be lost in giving medicaments, as artificial respiration is most important. The best method of restoring the respiratory function is to press the foot into the abdomen firmly and deeply, but not harshly, at first three times per second, and then oftener if these fail. Care must be taken not to obstruct a spontaneous inspiration that might be taken while these exercises are being done. Simultaneously with these manœuvres, others are engaged in extending the head, withdrawing the tongue, releasing the restraining ropes, harnesses, belts, etc., and, as soon as possible, the patient should be rolled to the opposite side to prevent blood stasis. A medicinal dose of strychnia may be given hypodermically. Inhalations of ammonia I have found to be harmful. When these means fail in the horse, little else can be done—the patient is dead. In the dog, swinging the

body to and from the hind legs, rubbing and slapping the body is sometimes effectual after artificial expansion of the thorax has failed.

Artificially induced respirations come first in resuscitating patients overwhelmed with an inhaled anæsthetic, the others are subordinate. As long as the heart still beats, no matter how feebly, there is still hope of exciting the respirations into activity, but when the heart ceases to beat, I fear we have but little chance to revive our over-anæsthetized patients. It is, however, only rarely that the heart is the original mischief-maker, and when it is, the patient is at once beyond hope of resuscitation.

When one of these short operations has been completed the restraint apparatus is removed and the patient allowed to lie stretched out until it will react to the loud clack of a strap across its rump. It can then stagger to its feet with a little assistance, and, after a few uncertain steps, soon regains its equilibrium. Depending upon the duration and depth of the anæsthesia, this is from fifteen to forty minutes after the last bit of anæsthetic was given.

Thus far I have endeavoured to show the kind of subjects that can be anæsthetized with safety, and the general plan of administration used in our clinics. With few variations in the apparatus used this is a fair description of the prevailing American customs. In conclusion, I desire to repeat that it requires no especial skill or knowledge not possessed by any veterinarian successfully to handle respiratory anæsthesia in healthy animals when the operation is of short duration. We find that veterinarians who adopt respiratory anæsthesia in the general plan of these minor operations soon use it to the exclusion of all other methods, and, besides, they soon become more proficient surgeons as well as expert anæsthetists.

Second Group.—This group of patients presents the surgeon with an entirely different problem. In it we include animals more or less enfeebled by the disease for which the operation is to be performed, and all those afflicted with diseases requiring long drawn-out, sanguinary operations. Among these are poll-evils, fistulæ of the withers, septic podotrochlitis, carcinoma of the eye, mammæ or penis, actinomycomata, scirrhous cords, large tumours, wounds with visceral complications, thecal abscess of the fetlocks, and others too numerous to mention. In these cases we miss the aid of the expert anæsthetist. The broadest knowledge of anæsthetic drugs and their remotest behaviour in the organism, coupled with skilful handling that can only be learned by wide experience, is absolutely essential to bring these subjects safely through these operations and the post-operative convalescence. It is in these operations that respiratory anæsthesia has proved such a hazard to veterinarians who have practised it without trained help. In these long operations it is inconvenient unless an anæsthetist in whom the surgeon has implicit confidence is employed: in fact it is so hazardous and inconvenient that veterinarians seek refuge in all sorts of substitutes that only stupify their patients. But these substitutes are not anæsthetics, they are only subterfuges: they do not answer the purpose of a real anæsthetic from any standpoint, and the only reason they are used is found in the fact that respiratory anæsthesia has been found dangerous in the very class of operations in which it is most needed.

Our death-rate from anæsthesia, and during anæsthesia, in the first group of patients has been low, but in this the second group it has varied in strict obedience to the skill displayed in the administration. In our clinics, where a more or less skilled anæsthetist is always available, the mortality is not high—in fact, it is very satisfactory: but when it becomes necessary to operate in the rural districts, where there is no trained help, the death-rate is appalling. An anæsthetist at the Mercy Hospital, Chicago, U.S.A., has anæsthetized 45,000 patients without a single death during anæsthesia, and, while such a record is worthless until it includes the post-operative history of the same patients, it shows that veterinarians are far behind surgeons of human beings in the handling of respiratory anæsthesia. In animals there are no statistics at hand from which the danger or safety of anæsthetics can be determined. I am, therefore, compelled to report only my own observations, and from these I have learned the lesson I am endeavouring to report—that is the danger of leaving the administration of respiratory anæsthetics for long, serious operations to untrained hands, and the relative safety of leaving it to the very same hands for short, simple operations. In short, the relief from this unfortunate situation which prevents us from resorting to inhalation anæsthesia where it is most needed will be found in the expert anæsthetist. I have always encouraged my students to practice respiratory anæsthesia, roundly condemning all other kinds of general anæsthesia, in order that we might develop more experts among us.

I shall now describe two methods of administering respiratory anæsthetics for serious operations that have proved the safest at my hands.

First Method.—An animal about to be submitted to a serious operation is conditioned into as healthy a state as possible by grooming, cleaning, feeding, exercising, etc. The volume of the intestinal contents is reduced by careful feeding, and food is withheld just before the patient goes to the operating table. The stomach should be empty.

As chloroform, although the most effectual drug for all animals, is entirely too toxic to be administered alone through a long operation, we resort to (1) a *preliminary anæsthetic*, (2) the *anæsthetic proper*, and (3) a *terminal anæsthetic*.

As a *preliminary anæsthetic* we administered chloral hydrate *per os*. Thirty to forty grammes dissolved in a litre of hot water is given as a drench one hour before the operation. Chloral given *per os* on an empty stomach gives a fairly uniform action. It is always safe and may be depended upon to do all that is required of a preliminary anæsthetic.

As the *anæsthetic proper*, we administer chloroform with a sponge and a canvas cylinder. The canvas cylinder is 1 ft. in diameter and 18 in. long, closed at each end with a tobacco-pouch string. One end is drawn over the nose, drawn tightly and fastened to the halter to prevent slipping off. Through the other end the sponge containing 30 c.c. of chloroform is placed against the nostrils. If a state of anæsthesia is not promptly produced, another 30 c.c. is added to the sponge. The free end of the cylinder is held shut with the tobacco-pouch string or with the hands. As soon as the reflexes are well under control the cylinder is folded back so as to expose the nostrils, and the work of maintaining a satisfactory state of anæsthesia is begun by administering the terminal anæsthetic composed of equal parts alcohol, chloroform and ether. This is administered through a towel laid over the nostril. The part immediately over the nostril is kept well soaked with the mixture. Air is allowed to pass freely through the undermost nostril. If the patient is obstinate we advise against the second use of the bag, but recommend that the undermost nostril be closed and results patiently awaited from the administration of the mixture through the towel.

When an exceptionally profound state of anæsthesia is desired, as, for example, when a deep state of relaxation of the musculature is essential, pure chloroform may from time to time be dropped into the towel instead of the mixture. In this manner we seldom poison a patient by erratic delivery, and while the state of anæsthesia is not as profound as some would desire, it is

usually sufficient to enable one to perform almost any veterinary operation.

Shock from slight anæsthesia is not common, but when it is possible to block the reflexes by cocainization of a nerve-trunk I advise that this be done. It was Crile (Cleveland, Ohio) who demonstrated that the brain is continually being bombarded with impressions from the seat of the operation in spite of even very profound anæsthesia. If this explains the cause of shock after prolonged operations we, too, should resort to nerve-trunk cocainization whenever the seat of operation is conveniently located.

In small animals we use this same general plan, but administer chloroform with much greater care as regards regular and decisive delivery, as these animals are more susceptible to over-dosing than the large herbivora. For dogs especial apparatus are handy but not essential. Ether is more fool-proof in small animals than chloroform, and should be chosen by inexperienced anæsthetists.

Second Method.—This method is one I shall recommend with great caution, because it has only recently been introduced into our clinics. It is the *endotracheal delivery* which differentiates it from our old plan. The other features are analagous. We administer the preliminary anæsthetic of chloral, and then deliver the anæsthetic proper and the terminal anæsthetic into the trachea with an atomizer. The rubber tube entering the atomizer is attached to a foot-bellows, the bottles containing the anæsthetics are placed into a small wooden box containing also an electric incandescent light to raise the temperature of the liquid, and the delivery tube is placed into the trachea through the uppermost nostril.

The foot-bellows agitates the warmed liquid and delivers it vaporized directly into the air passages. We deliver pure chloroform until anæsthesia is produced, then shift the delivery tube to a bottle containing the terminal anæsthetic of alcohol, chloroform and ether, also contained in the wooden box. We have used this crude apparatus with such splendid success that it seems worthy of improvement. Patients fall rapidly and safely into a surgical anæsthesia, and the exact amount of vapour delivered can be determined. There is none lost in the surrounding atmosphere.

The delivery tube can be very easily placed into the trachea in large animals. In small animals the opposition makes the method less inviting; and, as in human beings, it is necessary first to bring about anæsthesia with the face-mask, and then prize the mouth open and deposit this tube. The hindrance leaves it of doubtful value for dogs and cats.

Fatalities and other Untoward Sequelæ.

Serious results from prolonged anæsthesia are due chiefly to over-saturation—the patient is poisoned. If overdosed patients survive the operating period, they may even die afterwards, or produce havoc by falling into a more or less serious state of delirium. *Chloroform* delirium supervenes on long sanguinary operations. The unfortunate subject perspires copiously, rolls its eyes, fight with all-fours, and makes futile attempts to rise. If it finally regains the standing posture it lunges forward, presses the head to the wall, and falls about entirely oblivious to its surroundings. These manœuvres are, of course, disastrous to the seat of operation. Ligatures slip off, sutures are torn, and in fact general havoc to the wound results. This unfortunate sequel is often the unhappy end of an otherwise splendid operation where accurate dosage is ignored It occurs in different degrees of severity in strict obedience to the amount of chloroform consumed. Some end fatally, some die from wound complications, while others recover after a few hours, little injured by the ordeal through which they have passed.

Pneumonia, I have found, seldom follows chloroform without some other influence. Embolism and the enfeeblement following the operation are more to be incriminated than the chloroform. When influenza is prevalent there is more danger, but I have never seen it follow chloroform anæsthesia where these added influences do not exist.

Heart-failure is a rare accident where ordinary care is exercised to avoid susceptible subjects. With me it has occurred chiefly in animals affected with heaves, laryngeal hemiplegia, obesity and senility. An aged fat horse leading an idle life must be anæsthetised guardedly. Reflex syncope in which the amount consumed plays no part has occurred twice in my experience. These two animals (horses) died suddenly at the very beginning of the administration. Both of these animals were fat and lacked vigour.

Asphyxia is the usual form of death during anæsthesia. Due either to erratic dosing or to over-dosing, the prevention is found in keeping the amount consumed as low as possible, delivering the vapour regularly, and in watching incessantly for unnatural respiratory movements.

I have experimented somewhat with the *intravenous delivery* of both ether and chloroform, but have thus far been unable to bring about a satisfactory state of anæsthesia without endangering the patient's life from overdosing. It is, however, evident that there is still some justification for experimenting further with this method.

We need an apparatus that will deliver a regular flow and that will keep the anæsthetic at a uniform temperature. With this provided for we may yet decide upon this method of administering anæsthetics to animals to the exclusion of all others.

Summary and Conclusions.

(1) For slight anæsthesia suitable for short operations the respiratory delivery is safe even in the hands of untrained anæsthetists.

(2) For the profound anæsthesia required for serious and long operations, respiratory anæsthesia is safe only in the hands of experts.

(3) The most discouraging part of respiratory anæsthesia for animals is the difficulty of regulating the dosage. We need an apparatus to automatically measure the vapour delivered and consumed by the patient.

(4) For profound anæsthesia of considerable duration, the best way to keep within the limits of safety is by administering a preliminary anæsthetic of chloral, followed by chloroform, and then maintain the narcosis with a terminal anæsthetic of alcohol, chloroform and ether.

(5) Despite profound anæsthesia, exhaustion of the brain follows serious operations. This may be prevented by blocking with cocaine the nerve-trunks which lead from the seat of operation.

(6) The endotracheal delivery of respiratory anæsthetics is worthy of a trial. It is a step in the direction of dose regulation suitable for animals.

(7) Intravenous delivery of ether and chloroform is unsafe with the apparatus we now have for their administration.

Milk and Dairies (Scotland) Act, 1914.

The Local Government Board have postponed the date of coming into operation of the Milk and Dairies (Scotland) Act to 1st October next. They have also ordered that sellers of milk shall not be liable in an offence for carrying on business without a certificate of registration before 1st January, 1916. The period of exemption—viz., the three months between 1st October, 1915, and 1st January, 1916—is two and a half months less than the period contemplated in the Act, and is inadequate for the great volume of work to be overtaken. —*Scotsman.*

Portion of skin from face of pig, showing close set nodules of demodex.

Demodex folliculorum var. suis.

Tubercular foci.

Spleen of lemur, showing calcified tubercular nodules.

Showing histological structure of growth. (*Indian deer*).

Growth at base of horn-knob in Indian spotted deer. (*Cervus Axis.*)

DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
		Out-breaks (a)	Animals.	Out-breaks (a	Animals.	Out-breaks (b)	Animals.	Out-breaks (b)	Animals.	(b)	Out-breaks (a)	Slaughtered. *
GT. BRITAIN. Week ended Dec. 5		15	15			3	4			5	87	574
Corresponding week in	1913 ...	20	20			9	10	33	59	13	53	437
	1912 ...	12	13	1	6	1	1	49	95	20	53	526
	1911 ...	22	25	1	19	1	1			17	53	929
Total for 49 weeks, 1914		679	740	24	125	94	277	1547	2682	193	4143	38342
Corresponding period in	1913 ...	548	601	1	23	148	345	2243	4401	192	2387	29958
	1912 ...	713	807	83	645	166	305	2684	5649	275	2781	37838
	1911 ...	851	1059	19	486	198	478			375	2330	28662

(a) Confirmed. (b) Reported by Local Authorities. † Counties affected, animals attacked: London 4.

Board of Agriculture and Fisheries, Dec. 8, 1914

IRELAND. Week ended Dec. 5		...	...	...	...	...	...	Outbreaks 1		8	2	24
Corresponding Week in	1913 ...	...	...	...	...	...	...	...		21	2	8
	1912 ...	...	...	...	...	...	...	1		13	2	3
	1911 ...	...	...	...	...	...	...	1		6	12	67
Total for 49 weeks, 1914 ...		1	1	76	955	...	...	75		462	187	936
Corresponding period in	1913 ...	...	...	...	...	1	1	112		495	132	863
	1912 ...	3	3	68	382	...	...	61		350	206	1653
	1911 ...	9	16	...	...	2	3	55		315	160	2414

‡ The Parasitic Mange Order of 1911 has been suspended as from 6th August.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Dec. 7, 1914

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

Royal College of Veterinary Surgeons.

FELLOWSHIP DEGREE.

A meeting of the Board of Examiners for the Fellowship Degree was held at the College, 10 Red Lion Square, W.C., on Saturday, December 5th.

The following candidate was successful:—WM. ALEX. ELDER. Title of Thesis: "East African Coast Fever."

The Examiners were: Prof. Macqueen, Messrs. Malcolm and Woods; Mr. W. J. Mulvey in the chair.

FRED BULLOCK, Secretary.

Veterinary Examination at the H. and A. S.

A meeting of the directors of the Highland and Agricultural Society was held on Wednesday, Dec. 2nd.

At the previous meeting of the Board the question of Veterinary Examination was remitted to the Show Committee, and they now recorded their opinion that the Board should consider the advisability of undertaking the examination of all prize winners in the horse classes. Mr. Scott Plummer supported the suggestion, and moved that the directors appoint a committee to consider the question. The awards by the premier society in Scotland should be made to sound horses as far as human skill could enable them to determine that. It was the duty of the society to ensure that.

Mr. John M'Caig, Belmont, seconded. It was sometimes said that horses being judged by practical men, they knew whether horses were sound or not. That might and might not be so. They had to recognise that the system of veterinary examination of all horses had not worked for ill at the Royal Show of England. Breeders paid heavily for the use of breeding sires, and they were entitled to know that they were getting horses which, as far as human skill could determine, were guaranteed as sound. The resolution was unanimously agreed to, and at a subsequent stage of the meeting, Mr. Scott Plummer nominated his committee. —*The Scottish Farmer.*

Horse not Lying Down—A Question in Warranty.

In Perth Sheriff Court Sheriff-Principal Johnston has given his decision in an action at the instance of J. and J. Patrick, Victoria Stables, Perth, against M. Scott, Seafield, Kirkcaldy, in which the pursuers claimed £9 0s. 3d., being loss and damage sustained by them in respect that on 4th May last they purchased from defender at Macdonald, Fraser & Co.'s sale a black cob, warranted a good worker in harness and free from vice, and said cob was disconform to the warranty in respect that it failed to lie in the stall. The Sheriff, in giving decree for the sum sued for, with expenses, states that the case was not an easy one, but the first question was whether it was a vice justifying the rejection of a warranted horse when it refused to lie down in its stall. Having regard to the law as to what constitutes a vice and to the evidence to the consequences as regards the value of the horse with the fault, the Sheriff was of opinion that it constituted a vice warranting a rejection. "The auction mart rule that rejection must be intimated within three days—reasonable and proper as that rule is—does not fit well the case of a horse which does not lie down, but if the horse does not lie down during these days the purchaser is saddled with it if he does not intimate rejection."—*N, B. A.*

ARMY VETERINARY SERVICE

Extract from *London Gazette*,

WAR OFFICE, WHITEHALL, Dec. 4.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temporary Lieuts. :—

A. Hoskins. Dated Nov. 17.

W. S. Reid, F. G. Rugg Dated Nov. 20.

W. D. Connochie. Dated Nov. 21.

R. Lovett to be temporary Qrm., with the hon. rank of Lieut. Dated Dec. 5.

Special Reserve of Officers. ARMY VETERINARY CORPS.

R. W. Clarke to be Lieut. Dated Oct. 27.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Capt. F. G. Edwards resigns his commission on account of ill-health. Dated Dec. 5.

Dec. 5.

REGULAR FORCES. ARMY VETERINARY CORPS.

J. Fisher to be temporary Qrm., with hon. rank of Lieut. Dated Dec. 6.

Dec. 7.

REGULAR FORCES. ARMY VETERINARY CORPS.

H. S. H. Jones to be temporary Lieut. Dated Nov. 25.

J. H. Ashton to be temporary Qrm., with the hon. rank of Lieut. Dated Nov. 9.

Dec. 8.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. H. G. Westgate to be Capt. Dated Dec. 9.

Dec. 9.

REGULAR FORCES. ARMY VETERINARY CORPS.

Date of appointment of temporary Qmr. and Hon. Lieut. R. Owen is Nov. 22, not as stated in *Gazette* Nov. 25.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. J. Storie to be Capt. Dated Dec. 10.

J. Bell to be Lieut. Dated Nov. 21.

Dec. 10.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temporary Lieuts. :—

A. J. Sellars, D. O. Turnbull. Dated Nov. 23.

H. S. Jones. Dated Nov. 24.

G. S. Thomas, W. P. Reid, S. E. Hill. Dated Nov. 26.

MENTIONED IN DISPATCHES.

The London *Gazette* publishes the following supplementary list of names to be added to those appended to Sir John French's Dispatch dated Oct. 8 :—

* * *

Moore, Brig.-Gen. J., Staff.

OBITUARY

JOHN WILLIAM TOTTIE MOORE, F.R.C.V.S.

Edin. : Dec., 1873.

Mr. Moore's death occurred at Margate, on the 5th inst., after a few days illness (cerebral hæmorrhage). He was formerly chief veterinary inspector of the Board of Agriculture and Fisheries at the Port of Liverpool. Aged 67. Interred, Bebington Cemetery, Birkenhead.

G. PARKER SHORT, M.R.C.V.S., Torquay.

Graduated, Lond : Dec. 1871.

The death has taken place at Torquay of Mr. G. P. Short, M.R.C.V.S., after an illness which lasted for over eighteen months, and was due to bladder trouble ; he never recovered from a serious operation performed in London last January. Deceased was well known throughout the district as a skilful veterinary surgeon. He had for a long period filled the position of veterinary surgeon to the Torquay Town Council, and on several occasions when the Devon County Agricultural Association has selected Torquay for its annual show, Mr. Short has acted as one of the veterinary surgeons of the show-yard. For years past he has appeared as a professional witness in cases of alleged ill-treatment of animals, both in Torquay and in prosecutions in other towns in South Devonshire. Mr. Short has also acted, informally, as mediator or arbitrator between would-be litigants.

The deceased was sixty-four years of age. He leaves a widow, two daughters and a son, who is a veterinary surgeon in the Malay States, to mourn his death. His funeral drew a large following of friends, and the family were the recipients of much personal sympathy.

ROBERT MAIRS, M.R.C.V.S., Alnwick, Northumberland.

New Edin : May, 1904.

Mr. Mairs died on Saturday, 5th inst., from injuries received in a bicycle accident. Aged 33.

GEORGE WILLIAM WESTERMAN, M.R.C.V.S., Wakefield.

Edin : April, 1871.

Death occurred on 5th inst., at the age of 64.

Army Council Sued by East Kent Farmers

Two County Court actions of considerable interest to East Kent farmers were heard before his Honour Judge Shortt, at Canterbury on Tuesday, Frank Mummery, Iffin Farm, Thanington, suing the Army Council for balance of value of horses impressed, £35 5s. 8d., and Henry Marsh, Winter's Farm, Nackington, suing the Army Council for balance of value of horses imimpressed and balance of value of halters and collars, £16.

The Army Council was represented by Mr. Robin Thatcher, and Mr. A. K. Mowll appeared for both plaintiffs.

Mr. Mowll said war was proclaimed on August 4th, and within a few days, before anyone had any idea what was going to happen, a large number of farmers in the district were called upon by gentlemen who represented they were under impressment orders and bought horses for military purposes, in some cases taking half the horses owned by a farmer. On August 8th, Captain Whillan, of the R.A.M.C., who in private life, he believed, was a doctor at Sittingbourne, came to see the plaintiff, who was a farmer just outside Canterbury. He looked at the whole of the plaintiff's horses and selected the three best horses the plaintiff possessed. The three horses were known by the names of Rye (a gelding), Smiler (a bay mare), and Darling (a black mare). The question in dispute was whether £40 apiece which was ultimately paid by the defendants' representative was a true value for the horses. He (Mr. Mowll) understood that his friend, Mr. Thatcher, was going to take the point that the plaintiff was satisfied when Captain Whillan called subsequently, and generously increased the payment of £35, which he first offered, to £40 each. The plaintiff said he was not satisfied although extremely grateful for the extra £5. He was told on the first and second occasion that if not satisfied he had his remedy in the County Court. Whatever happened that day he (Mr. Mowll) was afraid his client would not get much because in that case his Honour had no power to award the plaintiff any costs, the defendant being the representative of his Majesty, and out of whatever he recovered the plaintiff would have to pay the whole of his own costs. The horse "Smiler" the plaintiff was asking fifty guineas, having bought it from Mr. Troward Spanton, who had had great experience of horses and disposed of thousands of horses every year, for 46 guineas. Some little time after plaintiff purchased the horse, Mr. Spanton offered to buy it back again at a profit. As Mr. Spanton would want his profit on reselling the horse the plaintiff considered fifty guineas was a fair sum to ask for the bay mare. Of the other two horses when Mr. Mummery bought them, one was only partly broken in

and the other was not broken in at all, therefore he had to go through the process of breaking in both colts. He was asking 55 guineas for the colt "Rye" and 45 guineas for the horse "Darling."

Plaintiff, in giving evidence bearing out Mr. Mowll's statement, stated that when Captain Whillan called upon him he was in the middle of harvest. Captain Whillan took his three best horses and said he should give £35 each for them. He (plaintiff) told him he would be better off if he put his hand in his pocket and stole fifty sovereigns. Captain Whillan pointed out that he (plaintiff) had his remedy in the County Court. The Captain said he had not his cheque book with him at the time, but would have it in the evening or would give him the cheque the next day. The same evening plaintiff called at the Drill Hall and saw Captain Whillan and again complained about the price. Captain Whillan told him he could not give more than £35. He (plaintiff) replied that if he could not give more than £35 why did he not buy £35 horses and not take £60 horses. Captain Whillan then said he could go as far as £40, but that if he gave more it would be charged back on the unit. He then paid plaintiff £40 for each horse. He gave £36 15s. for "Rye" two years ago. It was then unbroken and had never had a shoe on. He kept it for four months before he broke it in and in August this year he would not have taken 55 guineas for it. The bay mare "Smiler" he purchased in October 1913 and gave 46 guineas for her. Afterwards Mr. Spanton wanted to buy her back at a small profit. It had turned out to be a good worker and was worth 50 guineas. That was what he should have charged for her. The black mare "Darling" he purchased in October 1913 at Mr. Harvey's sale at Thruxted for 30 guineas. He thought it was worth £45 because he had had the expense of breaking it in, which cost £10. The cheque given to him by Captain Whillan was not met when he paid it in, but he received the money subsequently.

Cross-examined, plaintiff said when the cheque was not met he thought there was a chance to get his horses back again. He did not know whether the money was there or whether he should have to wait six or twelve months.

Mr. Thatcher: You accepted the cheque?—Plaintiff: Of course I did because they took the horses.

You did not write?—I did not know who I had to write to. I did not know whether I had got to apply to Captain Whillan or the King or who for the extra money. I don't think Mr. Mowll knew at first who I had got to apply to. (Laughter).

In further cross-examination, plaintiff said he should not be surprised if one of the horses had fallen down five times since it left him, because of the different food, the different work, and the different housing. He was sure "Smiler" did not kick or bite and that "Darling" did not suffer from side bone.

Mr. Troward Spanton, of Molland, Ash, who acknowledged that he sold a good many horses, stated that he sold "Smiler" to the plaintiff for 46 guineas. It was a cheap horse. In August this year he thought a fair price for the horse would be from 50 to 55 guineas.

Cross-examined, witness said the horse did not kick or bite when he sold it, but he should be susprised if horses did not kick and bite since the Army authorities had had them.

Mr. Mowll: They receive pretty rough treatment?—Witness: Yes.

Mr. Thomas Clyde, M.R.C.V.S., of Dover, gave evidence as to the value of the mare "Smiler," and said it it was upon his report that the plaintiff paid 46 guineas for her. This year he considered a fair price for the mare would be from £50 to £55.

Mr. G. W. Dunkin, M.R.C.V.S., of Canterbury, stated that he had examined all three horses on the previous Saturday at Winchester for the plaintiff. "Rye" had not a weak heart, and he considered it was worth 50 guineas. He heard it was going to be cast owing to being too big for the work required of it. The other horse he valued at £45. It was not suffering from side bone to any extent, but if it had side bone that would not be taken into account very much in farm work. Two of the horses looked good, but the black mare looked poor.

Mr. Thatcher contended that Mr. Mummery was satisfied with the price he got when it was raised to £40, but presumably later on he had a conversation with Mr. Marsh, and he thought he would try and get a larger price for them. He accepted the price and then altered his mind, and if this was universal it would be impossible to carry on the business of impressing horses, and every man if he felt dissatisfied could come to the Court for more money.

His Honour pointed out that this was not an ordinary case, because here the seller had to take what was offered to him, and the buyer took what he wanted. This application was really in the form of asking for compensation.

Mr. Thatcher agreed, but he thought there must be some limit to the matter.

His Honour: Will you get a limit of time placed in the next Act of Parliament, and use your influence to see that differences can be settled by a common sense arbitration instead of having to come here and bring hosts of veterinary surgeons and other witnesses?

Mr. Thatcher: I am afraid my influence will not avail much, sir.

Captain G. T. Whillan, R.A.M.C., said he was appointed at the outbreak of the war, purchasing officer for the Home Counties Division. It was a gratuitous task, and not a very pleasant one. He was accompanied by Lieut. Hamilton as transport officer. He impressed the three horses in question. He had just bought six from the neighbouring farm of Mr. Miles for £35 each, and he thought these were about the same sort of horse and he offered the same price. Mobilization had come upon them suddenly and he had to get 56 horses at once. The next day he saw plaintiff at the Drill Hall and they had a talk about the horses. His whole idea of buying these horses was to give £40 apiece for them, and as plaintiff did not seem satisfied he offered Mr. Mummery the extra £5 each and made it £120 for the three. He seemed more satisfied and shook hands at parting. As the cheque was not cashed when plaintiff first presented it at the bank owing to the orders being delayed, plaintiff did ask if he could have the horses back. "Rye" had turned out a bad bargain so far as they were concerned and had the staggers. It was no use to them for the expeditionary force, and had been "cast," and was now at the remount depot at Winchester. All three horses were in his own section and he took the greatest interest in them. "Smiler" was a better class horse and the sort they required, and he thought she was worth £40. He had had a great experience of horses and was in the South African war, as the medical officer of the 17th Lancers.

In reply to Mr. Mowll, witness said he did not pose as an expert of horses, but he thought the price placed on the horses by plaintiff's witnesses was too high.

Lieutenant J. L. Hamilton, transport officer, gave evidence corroborating the last witness. He placed the value of "Rye" at £10, and "Darling" was in a poor condition in his opinion, and was known by the men of the section as "the hat rack."

In reply to Mr. Mowll he agreed that "Smiler" was a very good horse.

The case of H. Marsh versus the Army Council was taken before His Honour gave his decision in the first case.

Plaintiff said that Captain Whillan came to his place on August 8th and purchased a pair of horses, for which he offered £35 each. He told the captain he could not not take that sum. The Captain came to him on Sunday and offered £40 for the one named "Captain" which he had purchased from Mr. Spanton for £45.

At this stage Mr. Mowll intimated that he and Mr. Thatcher had agreed in regard to this case. Mr. Marsh was willing to accept an offer of £10 to settle the case.

His Honour said that in the first case he should award a sum of £15.

It was decided that the case of Mr. Marsh should be withdrawn upon the agreed terms.

Fund for the A.V.C. with the Expeditionary Force.

Collection for Mrs. Moore's Fund per Mrs. Mettam, R.V.C.I., Dublin (7th List).

Previously acknowledged	£103	6	0
J. Caldwell, Spilsby, Lincs.	1	0	0
A. Munro, Belfast	1	0	0
D. J. O'Bryne, Dublin		10	0
*T. A. Crampton, Ballsbridge, Dublin	1	0	0
*Veterinary Medical Association of Ireland	5	5	0
Total of the Fund £365 11 6.	£112	1	0

*Used to purchase the following comforts for the A.V.C.:—8 shirts, 12 jerseys, 12 vests, 24 handker chieves, 6 pairs socks.
Mrs. R. F. Stirling, Lancaster: 6 pairs socks.

Dec. 8th, 1914.

ROYAL VETERINARY COLLEGE MEDICAL ASSOCIATION

Camden Town, N.W.
Dec. 8th, 1914.

Dear Sir,

At a recent meeting of the Association it was unanimously decided to publish in the veterinary press the names of those students now serving in His Majesty's Forces.

I herewith enclose such a list giving particulars of each student, and I hope you will publish it in your next issue.

In addition to the enclosed list I should like to mention T. L. Wright who, although not actually in His Majesty's Forces, is acting as veterinary assistant in the transportation of horses from Canada.—Yours faithfully,

BERNARD GORTON, Hon. Sec.
pp. P. R. TURNER, Assist. Sec.

LIST OF STUDENTS OF ROYAL VETERINARY COLLEGE WHO HAVE JOINED HIS MAJESTY'S FORCES.

Andrews, F. J. Lieut. A.S.C. Lichfield.
Barnes, J. E. 2nd Lieut. A.S.C. Windmill Hill, Andover.
Bavin, A. J. W. 2nd Lieut. A.S.C. Chelmsford.
Brekke, H. W. 2nd Lieut. R.F.A. Bulford.
Catmur, R. 2nd Lieut. A.S.C. Expeditionary Force.
Cox, D. H. 2nd Lieut. Scottish Horse, Kettering.
Dixon, T. J. Trooper 1801, Herts Yeomanry, Cairo.
Drew, A. 2nd Lieut. R.F.A. Newcastle-on-Tyne.
Facer, F. Lieut. R.A.M.C. Luton.
Fieldhouse, B. Lieut. S. Lancs. Regt. Blundellsands.
Gibson, J. Trooper, Leicester Yeomanry, Exped. Force.
Gibson, W. Trooper, King Edward's Horse, Watford.
Gill, E. J. Gunner, R.F.A. India.
Hayden, F. L. 2nd Lieut. A.S.C. Aldershot.
Hazelton, W. E. 2nd Lieut. W. Yorks Regt. Frensham Camp.
Hedley, J F. 2nd Lieut. R.F.A. Shoreham.
Housden, L. G. Medical Orderly, H.A.C. Cromer.
Hughes, L. R. Colewort Vet. Hos. Portsmouth.
Roberts, T. S. Private, Duke of Cornwall's L.I. India.
Simpson, K. S. Trooper 2402, Royal 1st Devon Yeo. St.Osyth, Essex.
Smith, R. T. 2nd Lieut. 2nd County of London Yeo. Cairo.
Stanley, J. W. Private, Royal Fusiliers, Epsom.
Wallace, E. 2nd Lieut. A.S.C. Expeditionary Force
White, J. H. M. 2nd Lieut. Manchester Regt. Wool. Dorset.
Williams, H. B. Corpl. Westminster Dragoons, Cairo

Appointment of Chief Veterinary Inspector, Edinburgh.

At a meeting of the Edinburgh Town Council, held on Tuesday, Dec. 1st, Lord Provost Inches presiding, Mr. Young moved the adoption of the Public Health Committee minute recommending the appointment of Mr. Arthur Gofton, F.R.C.V.S., Professor of Medicine in the Royal (Dick) Veterinary College, Edinburgh. He said he thought the Committee had been very fortunate in their choice. Prof. Gofton was a man who had administrative experience as veterinary inspector of the City of Birmingham, who had a brilliant career as a student and a man of science, who had practical experience as a veterinary surgeon, and who latterly had occupied the chair both of Veterinary Medicine and Surgery in the Royal (Dick) College.

Mr. Watson seconded, and the recommendation was unanimously agreed to.

Prof. Gofton, who is 36 years of age, was educated at the Royal Grammar School, Newcastle-on-Tyne, and passed the preliminary examination of the Durham University preparatory to entering the Royal (Dick) Veterinary College as an undergraduate. In 1899 he graduated with first-class honours, and in 1910 he obtained the Fellowship Degree of the R.C.V.S., choosing for the subject of his thesis "Fractures of the hip bone."

Prof. Gofton is the son of a veterinary surgeon who combined the duties of a municipal veterinary officer with the work of a general practitioner; he was thus afforded early and exceptional opportunities of acquiring knowledge of all branches of his profession.

Immediately after graduating, he was selected to act as Assistant Veterinary Officer to the Corporation of the City of Birmingham, which post he held for two years, and resigned in order to join his father in general practice.

In 1905, he applied for the Chair of Veterinary Surgery in the Royal (Dick) Veterinary College, and was selected to fill the position, which he held until the retirement of Principal Dewar in 1911. At the desire of the Board of Management of the College he then undertook the teaching of veterinary medicine, which had previously been carried out by Principal Dewar, and was transferred to the Chair of Medicine. At this time the supervision and control of the Clinical Department and of the Forges of the College also devolved upon him, and he became responsible, as representing the College, for the veterinary attendance to the stud of horses belonging to the City of Edinburgh, and for assisting and advising in the purchase of new horses.

For the last two years he has acted as examiner in Veterinary Hygiene for Degrees in Science in Agriculture in the University of Glasgow.